

BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

STATE OF WISCONSIN

Petition of the Wisconsin Department of Transportation for the Improvement of a Public Crossing of the Wisconsin Central Ltd. Tracks with Broadway in the City of Green Bay, Brown County

9164-RX-622

FINAL DECISION

By letter dated November 21, 2005, the Wisconsin Department of Transportation (DOT) filed a petition with the Office of the Commissioner of Railroads (OCR) under §§195.28 and 195.29, Stats., for the improvement of a public crossing of the Wisconsin Central Ltd. (WCL) tracks with Broadway in the City of Green Bay, Brown County (crossing no. 181 516S / MP 112.87).

Pursuant to due notice, public hearing was held in this matter on December 21, 2005 in Green Bay, Wisconsin with hearing examiner Douglas S. Wood presiding.

On December 29, 2005, the hearing examiner issued a proposed decision. The OCR received no comments. The Commissioner adopts the proposed decision as final without change.

Appearances:

**Parties**

Wisconsin Department of Transportation, Petitioner  
by  
Mark Morrison, PE  
Grade Crossing Safety Engineer  
PO Box 7914  
Madison, WI 53707-7914

In Support:

City of Green Bay  
by  
Paul Fontecchio  
Principal Pavement Engineer  
100 N. Jefferson Street, Room 300  
Green Bay, WI 54303

As Interest May Appear:

Wisconsin Central Ltd.  
by  
Terry Lee, PE  
Manager Public Works  
1625 Depot Street  
Stevens Point, WI 54481

## Findings of Fact

### THE COMMISSIONER FINDS:

The DOT and the City of Green Bay propose to reconstruct Broadway in 2006. The current roadway is 39' wide between curbs with no sidewalks. The reconstructed roadway would still be 39' wide, but a 5'-wide sidewalk would be added behind a 9.5'-wide terrace on the west side. The angle of intersection is 64° (left-hand forward). The crossing consists of a main track and a spur track owned by Georgia Pacific (GP). The City and GP have removed that track through Liberty Street south and east of the Broadway crossing. Testimony at the hearing indicated that the WCL owns the spur track within the roadway. WCL has agreed to its removal.

Broadway intersects Liberty Street about 65' south of the Broadway crossing. Liberty Street is controlled by stop signs at that intersection.

Broadway carried 6800 ADT (average daily traffic) in 2004. The City projects Broadway will carry 8300 ADT in the design year of 2026. The speed limit is 25 mph.

The railroad currently operates 2 train movements per day over the Broadway crossing location at a maximum speed of 20 mph.

A driver traveling at 25 mph needs a distance of 187' to stop safely. The crossing is visible from more than 187' in each direction. Assuming a train speed of 20 mph, a driver traveling at 25 mph needs to see a train when it is 210' from the crossing from a point 187' down the highway. The sight distance available in each quadrant from the safe stopping distance is over 260' in each quadrant. However, semi-trucks often park in the northwest, northeast, and southwest quadrants, which obstructs an approaching driver's view down the tracks.

At all crossings, except those with gates, a driver stopped 15' short of the near rail must be able to see far enough down the track, in both directions, to determine if sufficient time exists for moving their vehicle safely across the tracks to a point 15' past the far rail, prior to the arrival of a train. Required clearing sight distance along both directions of the track, from the stopped position of the vehicle, is dependent upon the maximum train speed and the acceleration characteristics of the "design" vehicle. The necessary clearing sight distance at the Broadway crossing is 450'. The available clearing sight distance is more than 450', but the left-hand forward skew of the crossing restricts the view of a driver looking to their right when stopped at the crossing.

The exposure factor at this crossing is about 13,600. The exposure factor at this crossing will be about 16,600 in the design year assuming 2 train movements per day. The exposure factor equals the product of the number of trains per day and the number of highway vehicles per day, which yields a numerical value for the potential conflicts each day at the crossing.

Five train-vehicle accidents have occurred at this crossing since 1973. The accidents occurred in 1982 (2), 1981, 1980, and 1979.

The crossing presently has 12" incandescent automatic flashing lights for warning devices. These warning devices are inadequate. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety, 12" LED automatic flashing lights with gates and constant warning time circuitry are needed because of the skewed angle and exposure factor.

During the project the crossing will have automatic flashing lights for warning devices. The project staging will require the use of a temporary signal to provide coverage for the west half of the roadway during Stage 2.

**Timing.** The highway project is scheduled for 2006. The project is scheduled to commence on July 7, 2006. **The temporary signal needs to be in place by July 7, 2006.** The City proposed that the crossing work be completed by September 5, 2006. The City also proposed that the new automatic flashing lights and gates be installed by September 22, 2006. The City would prefer that these new warning devices be installed by July 28, 2006. Installation of the new automatic flashing lights and gates by either of those dates will be challenging. The OCR has expedited its handling of the matter. The parties, including the railroad, indicated a willingness to expedite their work as well.

If the signals are not installed by the time the highway project is completed, the roadway can not be reopened to unrestricted traffic until the new warning devices are installed and activated. In that event the OCR would *consider* imposing a temporary stop and flag order on the railroad.

**Crossing surface.** The existing crossing surface is in good condition, except that the timber planks are worn and breaking apart. The WCL will replace the timbers only as part of the project. The roadway will need to be closed during replacement of the timbers. The WCL will bear the cost of that work.

*Constant warning time circuitry* adjusts for train speed and causes the crossing signals to always operate for the same amount of time before the train reaches the crossing, regardless of train speed. A motion detector simply detects the train operation, but does not adjust for train speed so that the amount of warning time varies based on train speed.

*Light emitting diodes (LED)* lamps replace incandescent bulbs. LEDs have higher conspicuity, a wider cone of vision, and longer life than incandescent lights. LEDs are especially useful on east-west roadways where the rising and setting sun may make the signals difficult to see.

In summary, the improvement of the crossing at-grade of the WCL tracks with Broadway will promote public safety and convenience.

**Source of funding:** The project will pay 100% of the cost for the signal materials and installation. The WCL shall pay the cost to replace the timbers in the existing crossing. The project will fund the cost to install the crossing surface at the sidewalk.

## Ultimate Conclusions on the Issues

### THE COMMISSIONER CONCLUDES:

1. That the improvement of the crossing at-grade of Broadway with the Wisconsin Central Ltd. tracks in accordance with the design plans of the Wisconsin Department of Transportation and the City of Green Bay in the City of Green Bay, Brown County will promote public safety and convenience.

2. That in order to adequately protect and promote public safety, it is necessary to install and maintain 12" LED automatic flashing lights with gates.

3. That it is reasonable for the Wisconsin Central Ltd. to bear the cost to replace the timbers in the existing crossing and for the public roadway project to fund the cost to install the crossing surface at the sidewalk.

### Conclusion of Law

### THE COMMISSIONER CONCLUDES:

That the jurisdiction of the Office of the Commissioner of Railroads under §§86.12, 86.13, 195.28 and 195.29, Stats., extends to this matter. Accordingly, the Office enters an order consistent with the findings of fact.

### Order

### THE COMMISSIONER ORDERS:

1. That the **Wisconsin Central Ltd.** shall install and maintain new timber planks in the roadway crossing and a new timber-plank and asphalt crossing for the new sidewalk at the crossing of **Broadway** with its tracks in accordance with the design plans of the Wisconsin Department of Transportation and the City of Green Bay in the City of Green Bay, Brown County by **September 5, 2006** (Crossing No. 181 516S / MP 112.87)

2. That the **Wisconsin Central Ltd.** shall install and maintain 12" LED automatic flashing lights with gates, constant warning time circuitry, and other appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with **Broadway** at-grade in the City of Green Bay, Brown County by **September 22, 2006** (Crossing No. 181 516S / MP 112.87). The **temporary signal** shall be installed by **July 6, 2006**.

3. That the **Wisconsin Central Ltd.** shall submit to the Office of the Commissioner of Railroads signal and circuit plans with the cost estimate of its proposed installation and upon completion of the signal project, a detailed statement of the actual cost to the Office and to the Wisconsin Department of Transportation.

4. That the signal installation work herein ordered shall not begin until the regional office of the Wisconsin Department of Transportation informs the railroad that they may start such work and such start notice will not be issued until appropriate federal aid or other funding arrangements have been assured. The cost of the new project initiated before the start notice will not be reimbursed with public funds and shall be the responsibility of the railroad.

5. That the **City of Green Bay** shall not open Broadway at the railroad crossing to unrestricted public use until the installation and activation of the automatic warning devices ordered above.

6. That the **Wisconsin Central Ltd.** shall bear the cost to replace the timbers in the existing crossing and the public roadway project shall bear the cost to install the crossing surface at the sidewalk. The **Wisconsin Central Ltd.** shall also bear any cost assessed to the railroad pursuant to §195.60, Stats., for the investigation of this matter by the Office. The railroad shall not pass on those assessment costs either directly or indirectly.

7. That jurisdiction is retained.

Dated at Madison, Wisconsin, (January 19, 2006).

By the Office of the Commissioner of Railroads.

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Rodney W. Kreunen  
Commissioner of Railroads

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